

Appl. No. 10/810,728
Amdt. Dated January 4, 2006
Reply to Office Action of October 5, 2005

Attorney Docket No. 81872.0060
Customer No.: 26021

REMARKS/ARGUMENTS

This application has been carefully reviewed in light of the Office Action dated October 5, 2005. Claims 1 and 10 are the independent claims. Claims 1-9 are pending in the application. Reexamination and reconsideration of the application are respectfully request.

CLAIM REJECTION UNDER 35 U.S.C. § 102(B)

Claims 1, 6-8, 10, 15, and 18 stand rejected under 35 U.S.C. § 102(b) as being unpatentable over Ogawa (U.S. Patent No. 4,381,469). Applicant respectfully traverse the rejection as to the original claims.

The present invention is directed to a surface acoustic wave apparatus used in a mobile communication device. Independent claim 1 of present invention is recited below:

“A surface acoustic wave apparatus formed by
mounting a surface acoustic wave element to a circuit
board, wherein:

said surface acoustic wave element includes
a piezoelectric substrate, an electrode, formed on one
main surface of said piezoelectric substrate, to be at a
ground potential, and an IDT electrode formed on said
one main surface of said piezoelectric substrate;

said IDT electrode is an electrode comprising
paired comb-teeth-shaped electrodes, each having plural
electrode fingers, oppositely placed in such a manner that
the electrode fingers of one comb-teeth-shaped electrode

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are positioned between the electrode fingers of the other
comb-teeth-shaped electrode;

either of said comb-teeth-shaped electrodes
forming said IDT electrode is connected to said electrode
to be at the ground potential via a resistor formed on said
piezoelectric substrate; and

said resistor is made of a semiconductor."

The applied Ogawa reference is directed to a piezoelectrical device, such as a surface acoustic wave device. (*See, Ogawa; Col. 1, lines 7-14*). According to Ogawa, the piezoelectrical device includes an interdigital (IDT) electrode (6) formed on the ferroelectric plate. A ground electrode (7) is disposed on the other surface of the ferroelectric plate. The IDT electrode and the ground electrode is connected by a resistive component (19). The resistive component (19) may be a resistive paste or a resistive resin material. (*See, Ogawa; Col. 2, line 63 – Col. 3, line 5; Fig. 3*).

The applied reference does not disclose or suggest the above features of the present invention as defined by independent Claim 1. In particular, Ogawa does not disclose or suggest, "said surface acoustic wave element includes a piezoelectric substrate, an electrode, formed on one main surface of said piezoelectric substrate, to be at a ground potential, and an IDT electrode formed on said one main surface of said piezoelectric substrate;...either of said comb-teeth-shaped electrodes forming said IDT electrode is connected to said electrode to be at the ground potential via a resistor formed on said piezoelectric substrate," as required by the independent Claim 1.

The claims of present invention requires a ground electrode forming on one main surface of the piezoelectric substrate. An IDT electrode is formed on the same main surface. In contrast, Ogawa teaches the ground electrode (7) is formed on the

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other surface of the ferroelectric plate. (*See, Ogawa; Col. 2, lines 63-68; Fig. 3*). According, Ogawa does not teach or suggest the above feature of the present invention as recited in independent claim 1.

Moreover, Ogawa does not teach or suggest, "said resistor is made of a semiconductor," as required by the independent Claim 1.

Ogawa teaches the resistive component (19) may be a resistive paste, a resistive resin material, or a metal oxide material. (*See, Ogawa; Col. 3, lines 3-5; col. 8, lines 58-59; Col. 9, lines 7-10, lines 46-47*). Ogawa does not teach or suggest the resistor is made of a semiconductor, as required by independent claim 1.

Accordingly, the applied reference does not teach or suggest the above features of the present invention as recited in the independent Claim 1.

Since the cited reference fails to disclose, teach or suggest the above features recited in independent Claim 1, the reference cannot be said to anticipate or render obvious the invention which is the subject matter of the claim.

Accordingly, independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

Claims 2-9 depend either directly or indirectly from independent Claims 1, and are thus also believed to be in condition for allowance.

Moreover, Applicant respectfully submits that independent Claim 10, reciting "said resistor is made of a semiconductor," is allowable for the least the same reasons as those discussed in connection with independent Claim 1.

Claims 11-19 depend either directly or indirectly from independent Claims 10, and are thus also believed to be in condition for allowance.

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CLAIM REJECTION UNDER 35 U.S.C. § 103(A)

Claims 2-5, 11-14, and 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogawa in view of Sugai (U.S. Patent No. 5,028,101). Applicant respectfully traverse the rejection as to the original claims.

Sugai is directed to a surface acoustic-wave device and a notch filler device used in spread-spectrum communication system. (*See, Sugai; Col. 1, lines 7-10*). According to Sugai, the surface acoustic-wave device includes an input and output transducers having different electrode periods, and includes diode arrays provided in a semiconductor layer under a gate electrode between the transducers. (*See, Sugai; Abstract; Fig. 11*).

Sugai does not remedy the above deficiencies of Ogawa. Accordingly, the cited references fail to disclose, teach or suggest the features recited in the claims of present invention, and cannot be said to anticipate or render obvious the invention which is the subject matter of the claim.

Accordingly, claims 2-5, 11-14, and 16-17 are believed to be in condition for allowance and such allowance is respectfully requested.

Moreover, claims 9-19 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ogawa. Applicant respectfully submits that Ogawa does not teach or suggest the features recited in the claims of present invention, as discussed in the § 102(b) section above. According the above claims are allowable over Ogawa under § 103(a), and such allowance is respectfully requested.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

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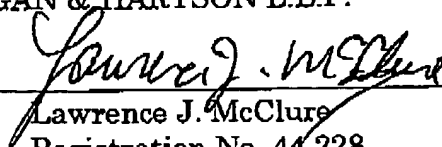
If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6810 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
HOGAN & HARTSON L.L.P.

Date: January 4, 2006

By: _____


Lawrence J. McClure
Registration No. 44,228
Attorney for Applicant(s)

500 South Grand Avenue, Suite 1900
Los Angeles, California 90071
Phone: 213-337-6700
Fax: 213-337-6701